SOME ANIMALS FROM THE MACGILLICUDDY'S REEKS.

BY R. F. SCHARFF, PH.D., and GEORGE H. CARPENTER, B.SC. [Collected for the R.I.A. Flora and Fauna Committee.]

IN September, 1898, having been deputed by the R.I.A. Flora and Fauna Committeeto make a preliminary survey of the fauna of the MacGillicuddy's Reeks, we set out for that famous mountain-range. The long distance from Killarney to the foot of the Reeks led us to make Glencar, at the western extremity of the range, our headquarters. Accordingly we took train from Dublin to Killorglin, and drove thence by a road commanding fine views of our proposed collecting-ground. At the approach of evening the mists, which throughout the day had rested on the hills, slowly lifted, and, as we skirted Lough Acoose, the summit of Carrantuohill was plainly to be seen. We soon found ourselves comfortably settled for the night in the Glencar Hotel.

Early next morning we started for the mountains, the day being fine and almost cloudless. The road from the hotel rises steadily for about three miles to Lough Acoose, whence the ascent begins. Like the whole of Co. Kerry, the district is poor in animal life, and our stay being confined to two days we observed only a small proportion of lowland forms, our main object being to explore the higher regions of the The weather being dry, Mollusca were especially Reeks. Near the hotel the commonest species were the slugs scarce. Arion ater (both brown and black varieties), Arion Bourguignati, Limax marginatus (arborum), and Agriolimax agrestis, while of snails only Helix rotundata was met with. Near Lough Acoose, Vertigo edentula was taken by sweeping Bracken, while Hvalinia radiatula occurred under stones. Flying around the trees or on the lake-shore we noticed very richly marked specimens of the "Vapourer" Moth-Orgyia antiqua.

We delayed only a short time collecting at the foot of the mountain, and pushed on towards Carrantuohill. The ascent up to 3,100 feet—a point named Caher—is easy, and by keeping high enough up on the side of the valleys, it is possible to avoid boggy ground almost entirely. Up to 1,500 feet some common arachnids were fairly numerous; the

A

Harvestmen Liobunum rolundum, Megabunus insignis, and Acantholophus cphippiatus were observed, while among the spiders we saw Araneus diadematus, Meta segmentata, M. meriana, Lycosa pulverulenta, Paradosa pullata, and P. amentata, in numbers. More noteworthy were single specimens of Erigone promiscua and Diplocephalus latifrons. Among the beetles1 we found, about the same elevation, Cychrus rostratus, Notiophilus biguttatus, Nebria brevicollis, Bradycellus cognatus, Pterostichus vulgaris, P. diligens, Anchomenus albipes, Trechus minutus var. obtusus, Quedius boops, Lathrobium fulvipenne, Platystethus arenarius, Choleva angustata (hitherto unknown in the south-west), Coccinella hieroglyphica, Byrrhus pillula, Lochmæa suturalis, Apion striatum, and Sitones lineatus. The handsome red-legged fly, Bibio pomonæ, was abundant above 1,500 feet. From the foot of the mountain up to 2,000 feet the only molluscs observed were Arion ater and Limax marginatus.

At the height of 2,500 feet, however, we were greatly struck with the sudden appearance of a small, almost perfectly black slug looking like a very dark form of Agriolimax agrestis. which species abounds lower down in the large, white, unspeckled variety characteristic of western Ireland. We found several specimens of this interesting slug between 2,500 feet and Caher (3,100 feet); it often crawls over the surface of the large rock-fragments which strew these higher slopes, and its black colour makes it very conspicuous. On closer examination the wrinkles on the back showed the structure peculiar to Limax, with which the form also agreed in the absence of the milky slime so characteristic of Agriolimax agrestis. We were puzzled by this peculiar form, which is certainly quite absent on the lower slopes of the mountain. Careful study afterwards led to the conclusion that it must be a small dark form of *Limax marginatus*, which is certainly worthy of a distinct varietal name.

Limax marginatus, var. nov. niger, Scharff.

Golour almost black, sides a little lighter, but no trace of bands, stripes, or spots. Foot-fringe black; sole light grey. Length, when fully extended, 35 mm. Keel strongly developed on posterior half of body.

¹ We have to thank our colleague, Mr. J. N. Halbert, for identifying the Coleoptera and Hemiptera we collected.

1899.] SCHARFF & CARPENTER.—Animals from the Reeks. 215

This slug is so much like Agriolimax agrestis in general appearance (except colour), that we at first sight naturally mistook it for an Agriolimax. Examination of the reproductive organs showed however a close correspondence with Limax marginatus, while Professor Simroth (to whom a specimen was sent) drew attention to another limacine character the six convolutions of the intestine; Agriolimax has only four. Indeed the internal organs of this slug from the Reeks agree in all respects except size with those of an ordinary Limax marginatus, which is generally double the size of the present variety.

Limax marginatus (formerly known as L. arborum), has a very wide range in Europe, but it is more common and variable in the west than in the east. One of us has taken it as far south as the Canaries, and it is recorded from Scandinavia, the Faroes, and the Shetlands. The beautiful variety maculata, described by Roebuck, and recorded by him from Co. Mayo, seems to be confined to western Ireland; in the south-west it has been noticed only around Killarney and Berehaven. The present form (var. niger) occurs, according to Professor Simroth, also in Transylvania. It approaches very closely var. rupicola of Lessona and Pollinera, which occurs in the Piedmontese Alps up to 7,000 feet, and has been recorded by Roebuck from the Mourne Mountains, but differs from that form in being entirely unicolorous above. Other varieties (Beltonii and nemorosa) are also known from Ireland.

Besides this interesting slug, Arion ater (the black variety only) A. subfuscus (a small dark brown form) and A. intermedius were found sparingly above 2,700 feet. At that height Hyalinia alliaria occurred, but no snails were noticed beyond. The flies Tipula hortensis and Sepsis cynipsea and the spiders Bathyphantes variegatus, Leptyphantes Blackwallii, L. tenuis, and Textrix denticulata were noticed up to 2,500 feet, but not higher. Other species however were to be found right up to the summit of Caher :- Tapinopa longidens, Porrhomma pygmæa, Tmeticus prudens, T. Huthwaitii, T. abnormis, T. bicolor var. concinnus, and Walckenaera nudipalpis. Of the mountain beetles, Carabus catenulatus occurred as high as 2,700 feet, while from that level up to the summit of Caher we met with Leistus

[October,

montanus, Nebria Gyllenhalii, and Patrobus assimilis. Earthworms taken at this high elevation have been identified for us by Rev. H. Friend as Lumbricus rubellus, and Allolobophora subrubicunda.

Caher is a conical peak, commanding magnificent views of Dingle Bay and peninsula, and of the beautiful mountain ranges which stretch away westwards towards Valentia. From Caher to the summit of Carrantuohill it is necessary to follow the grand ridge of the Reeks, whence a sheer precipice drops on the left 1,600 feet, to the tarn known as Lough Eagher, and a steep slope on the right to the Black Valley. By keeping along this slope a few feet below the ridge the walk presents no difficulty on such a day as we were favoured with; though in a mist or a high wind, the journey would be more exciting than pleasant. From Caher the ridge dips several hundred feet, then rises again to another peak with magnificent scarped cliffs to the north, and then dips again before rising to the summit of Carrantuohill (3,414 feet). From Carrantuohill the ridge stretches away eastward to the Gap of Dunloe, but unfortunately we had not time to follow it further. On the ridge a specimen of the rare spider Leptyphantes pallidus was found beneath a stone, its only other known Irish habitat is Mitchelstown Cave! On the actual summit of Carrantuohill the only animals observed were the beetle Nebria Gyllenhalii, the springtail Entomobrya multifasciata (very common under stones), the spider Pedanostethus lividus, the harvestmen Mitopus alpinus and Nemastoma lugubre, and the centipede Lithobius variegatus. Of these only Nebria Gyllenhalii and Mitopus alpinus can be considered mountain forms; the others are all common lowland animals. The Lithobius was observed in numbers all the way up the mountain; the specimens are smaller and more brightly marked than typical L. variegatus, but in structure they agree altogether with that species.

Returning along the ridge to Caher, we descended a steep slope to Lough Eagher, a good-sized tarn, situated at a height of 1,550 feet right beneath the grand precipices of Carrantuohill. The only mollusc which rewarded our search here was *Ancylus fluviatilis*, but of the two water-beetles taken,

1899.] SCHARFF & CARPENTER.—Animals from the Reeks. 217

Haliplus lineaticollis and Agabus guttatus, the latter is new to the south-west of Ireland. We also found the interesting dark variety of the water-bug Corixa nigrolineata (Fabricii). Next day we returned to the tarn, and secured a freshwater sponge, which on examination proves to be the North American species Heteromeyenia Ryderi, Potts, recorded by Hanitschi from Lough Doon, near Dingle. This species will probably therefore be found widely distributed in the south-west. The present specimen is remarkable in possessing a number of perfectly plain spicules in the dermal skeleton, in addition to the typical spiny spicules as figured by Potts and Hanitsch intermediate forms of spicule with very few spines also occur. According to Potts the spicules in this species are very variable, and he describes two varieties (Walshii and Baleni) in which the number of spines is greatly reduced. Both kinds of amphidiscs in the gemmules of the sponge from Lough Eagher are altogether typical in form.

The best descent from this tarn to the road (probably also the best ascent to the Reeks, though rather longer than the route we had taken) would be to follow the course of the stream which flows from it, keeping to the left bank. But we were unwise enough to try a short cut to Lough Acoose, and so had to cross some very broken and boggy ground, which delayed progress so much that it was quite dusk before we again stood on the high road. The stream which we should have followed flows under the road about half a mile below Lough Acoose.

Next day, in addition to revisiting the tarn, we did a little collecting at the foot of the mountain, near Glencar. Besides such common insects as Sympetrum striolatum, Philopotamus montanus, Agabus bipustalatus, Carpocoris baccarum, Stygnus pedestris, Scolopostethus decoratus and Orthotylus cricetorum, we secured a plant-bug, Calocoris chenopodii, new to Ireland, and a beetle, Haltica pusilla, of which no certain Irish specimen is known. The spider Araneus Redii was observed near the hotel, and some of our fellow-guests having told us of a wonderful long-legged spider in their bedroom, we instituted a hunt on the morning of our departure, and captured several specimens of Pholcus phalangioides.

[October,

The few remarkable varieties of well-known species which we found in our hurried expedition to the MacGillicuddy's Reeks show that much more interesting results could be expected from a more systematic survey. We must confess that we found the work of collecting while hill-climbing in the soft Kerry air decidedly tiring, and much more work might be done if a party of naturalists could arrange to camp out on the shores of Lough Eagher, or at some point half-way up the mountain. The higher and lower slopes could thus be well searched with the least amount of fatigue, while nocturnal insects could be studied. But we feel ourselves happy to have been able to work even so little at the fauna of this lovely district, and the favourable weather we had enjoyed while collecting was brought vividly to our remembrance, as we drove twenty miles through peiting showers of rain to catch the up express from Killarney.

Science and Art Museum, Dublin.

MIGRATORY BUTTERFLIES IN SOUTH-WEST CORK.

BY J. J. WOLFE.

ON June 7th I saw *Pyrameis cardui* for the first time this year, and for a week or ten days after they were very numerous; they appeared to have arrived in thousands simultaneously or nearly so. I saw no *Colias cdusa* in June, but my little son told me he saw one. So I watched for their re-appearance. The *P. cardui* immigrants remained with us; after resting they did not move inland, and others continue to arrive, for day after day the same individuals returned to the same spots—for instance one was in our yard for several successive mornings, and when disturbed flew to the same slate on an adjacent roof.

In the first weeks of July larvæ of *P. cardui* were abundant all over the neighbourhood, wherever I went. On Sherkin Island, which I visited on July 6th, they were very plentiful. On the 17th most of the larvæ had left the thistles, and on the 19th I saw the last, three or four full fed.

218